

COLSF VI
Colbert 8.2

**ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99219
509-534-0161**

RECEIVED
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REPORT TO: Spokane County Dept. of Utilities
N. 811 Jefferson
Spokane, WA 99210

LAB NO: 33964-90
DATE: 9-17-90
SAMPLE DATE: September

ATTN: Bruce Austin


DESCRIPTION: Perform Volatile Organic Scan on 20 submitted samples from the wells in the Colbert Landfill area. Analyses performed by methods outlined in proposal of December 8th, 1988.

DETECTION LIMITS: 1 part per billion

ND: Not Detected

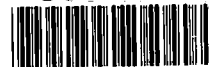
This document contains six pages.

Respectfully Submitted,
ABC LABORATORIES, INC.



W.E. Burkhardt
Manager

USEPA SF



1414335

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33964-90

NAME

(b) (6)

Betty
Springs

(b) (6)

WELL NO.

1573R-2

1073C-1

1573C-17

0273F-2

1673A-2

0273E-1

DATE:

9-13-90

9-14-90

9-13-90

9-13-90

9-13-90

9-14-90

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	43
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	412
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,2-trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33964-90

NAME

(b) (6)

WELL NO.

0273E-1
Confirming

1273M-1

1573B-5

1573B-5
Confirming

1473D-2

0273C-5

DATE:

9-17-90

9-13-90

9-13-90

9-17-90

9-14-90

9-13-90

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	37	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	379	ND	3	2	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,-richloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33964-90

NAME

North
Meadows

(b) (6)

WELL NO.

1073J-2

1573C-11

1573E-2

1573C-2

1573Q-1

1573B-1

DATE:

9-13-90

9-13-90

9-13-90

9-14-90

9-13-90

9-17-90

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	3
1,1-Dichloroethylene	ND	ND	ND	ND	ND	2
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	58
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,2-trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33964-90

NAME

(b) (6)

Travel
Blank

WELL NO.

1573B-1
Confirming

1473C-3

1073Q-4

1073L-4

1573C-6

DATE:

9-17-90

9-13-90

9-13-90

9-13-90

9-13-90

9-17-90

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	ND	ND	ND	ND	ND
1,1-Dichloroethylene	1	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	49	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,-richloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33964-90

NAME

Travel
Blank
#1

Travel
Blank
#3

Travel
Blank
#4

DATE:

9-17-90

9-17-90

9-17-90

Chloroform	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND
Trichloroethylene	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Tetrachloroethylene	ND	ND	ND
Methylene Chloride	ND	ND	ND
1-Pentene	ND	ND	ND
Cyclopentane	ND	ND	ND
Trans 2-Hexene	ND	ND	ND
Benzene	ND	ND	ND
Toluene	ND	ND	ND
Ethylene DiBromide	ND	ND	ND
Ethyl Benzene	ND	ND	ND
M-xylene	ND	ND	ND
O-xylene	ND	ND	ND
P-xylene	ND	ND	ND
Cumene	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND
P-cymene	ND	ND	ND
Chlorobenzene	ND	ND	ND
M-dichlorobenzene	ND	ND	ND
O-dichlorobenzene	ND	ND	ND
P-dichlorobenzene	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND
Acetone	ND	ND	ND
Bromodichloromethane	ND	ND	ND
Bromoform	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND
Dibromochloromethane	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND
1,1,2-trichloroethane	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND

05-01-89

PERFORMANCE STANDARDS

MAXIMUM ALLOWABLE CONTAMINANT CONCENTRATIONS

SEPT 1990



SYMBOL	LAYER	DESCRIPTION
	ROADS	EXISTING ROADS
	CO LINE	20' CONTIGUOUS LINE
	POWER	TRANSMISSION & R&R
	WATER	RIVERS & STREAMS
	GRID	1/4 SECTION
	WET	WET PLATS
	SHALLOV	WETTER THAN 10' DEEP
	DEEP	WETTER THAN 10' DEEP
	WATER	WATER DOTS OTHER AQUIFER
		INDICATE COASTAL CATCHMENT

NOTE:

FOR IDENTIFICATION OF WELLS
SEE WELL OWNER/HANDLER LEGEND

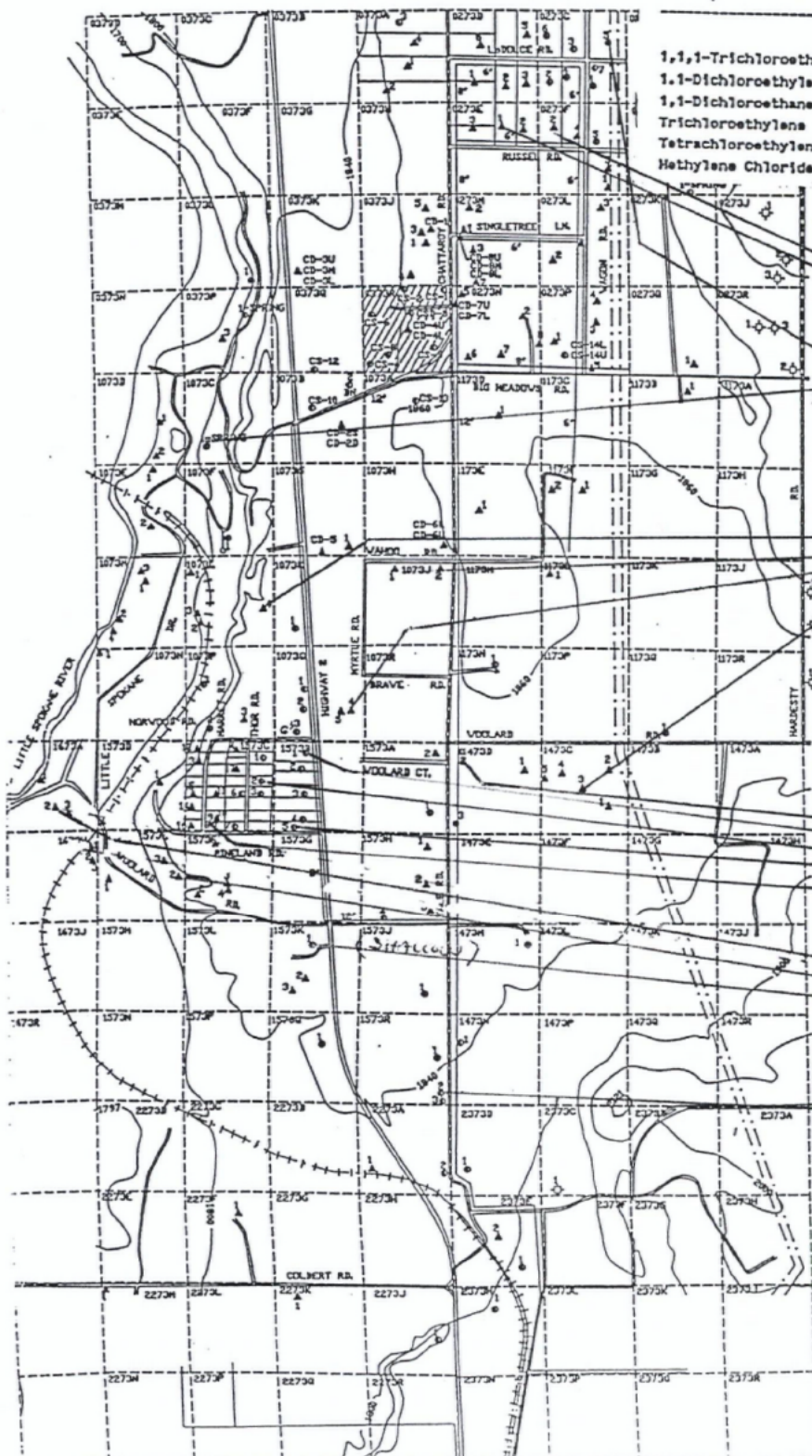
Health Protection Levels^a

* Health Protection Levels are not to be exceeded, during operational life of remedial action in effluents from groundwater treatment systems. Permanent reduction of contaminant concentrations below these levels throughout the site will indicate completion of the remedial action.

Contaminant

Maximum Concentration
parts per billion (ug/l)

Page 12



1,1,1-Trichloroethane (TCA)	200.0	HCL
1,1-Dichloroethylene (DCE)	7.0	HCL
1,1-Dichloroethane (DCA)	4050.0	HAC
Trichloroethylene (TCE)	5.0	HCL
Tetrachloroethylene (PCE or TETRA CL)	0.7	10 - 8 cancer risk
Methylene Chloride (MC)	2.5	10 - 8 cancer risk

(b) (6)

DATE	WELL #	111-TCA	11-DCE	11-DCA	TCE	TETRACHL	CHLOROFORM
09/17/90	#33964-90						
(b) (6)		0273F-2	ND	ND	ND	ND	ND
		0273F-1	412	43	ND	ND	ND

SHALLOW
09/17/90
(b) (6)

DATE	WELL #	11-TCA	11-DCE	11-DGA	TCE	TETRACL	CHLOROFORM
09/17/90	633984-90						
(b) (6)	0273C-5	ND	ND	ND	ND	ND	ND
BATTY BROTHER	1073C-1	ND	ND	ND	ND	ND	ND

DEEP _____
08/13/80

DEEP		WELL #	111-TCA	111-DCE	111-DCA	TCE	TETRACL	CHLOROFORM
08/17/90	#33964-90							
(b)		10731-4	ND	ND	ND	ND	ND	ND

(b) (6)

NORTH MEADOWS (MIDDLE)	10730-4	ND	ND	ND	ND	ND	ND
(b) (6)	12730-1	ND	ND	ND	ND	ND	ND
	14730-3	ND	ND	ND	ND	ND	ND

SHALLOW

SHALLOW							
09/17/90	#33864-90	WELL # 111-TCA	11-DCE	11-DCA	TCE	TETRACL	CHLOROFORM
(b) (6)		14730-2	ND	ND	ND	ND	ND
		15738-1	5.8	2	3	ND	ND
		15730-2	ND	ND	ND	ND	ND
		15738-2	3	ND	ND	ND	ND

DEEP _____
09/17/91

DEEP						
09/17/90	#33984-90	WELL # 111-TGA	11-DCE	11-DGA	TCE	TETRACL CHLOROFORM
(b) (6)		1572A-2	ND	ND	ND	ND
		1572E-2	ND	ND	ND	ND
		1572G-1	ND	ND	ND	ND

SHALLOW
DEPTHS

SHALLOW
09/17/90 #33264-90 WELL # 111-JCA 11-DCE 11-DGA TCE TETRACL CHLOROFORM
(b) (6) 1573R-2 NO NO NO NO NO NO